

The Effect of Creative Problem-Solving Model Assisted by Picture Series Media on Creative Thinking Ability

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Receive:27/08/2022 Accepted: 10/09/2022 Published: 01/10/2022	
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Abstract

This study aims to describe the effect of creative problem solving models assisted by serial images on creative thinking skills. The type of research used in this study is a quasi experimental design type nonequivalent control group design. The population in this study were all students of Cluster I, Somba Opu sub-district, Gowa district, totaling 329 students with a total sample of 60 using cluster random sampling technique. The data collection technique used is a test technique to determine the ability to think creatively by giving essay questions. The results of the study based on hypothesis testing about the effect of the Creative Problem Solving model assisted by serial picture media on students' creative thinking skills in the control and experimental class posttest using the independent sample t test, obtained a significant value of 0.00 less than 0.05 so it can be stated that creative problem solving model assisted by serial picture media has an effect on students' creative thinking skills.

Keywords: Creative Problem Solving, Series Picture Media, Creative Thinking.

Introduction

The ability to think creatively is one of the components of ability that is important for 21st century society. According to Susanto (2013) creative thinking is a process that involves elements of originality, fluency, flexibility, and elaboration. This shows that creative thinking can develop language power that includes insight with broad elements. Creative thinking can produce quality thinking. This opinion is reinforced by Sani (2014) that creative thinking is the ability to develop ideas that are unusual, quality, and appropriate to the task. This is selfdevelopment of new ideas that have good ones. According to Munandar (2012) creative thinking has five stages, namely: orientation, preparation, incubation, illumination, and verification.

Based on the expert opinion, the ability to think creatively is the key to success in solving problems, because creativity can be a bridge between the stages of processing cognition and execution so that someone has convincing achievements or results. Therefore, students' creativity should be fostered from an early age so that in the future students will find it easier to find ideas from the creative thinking process. However, the creative thinking ability of students in Indonesia is not optimal enough. The results of TIMMS in 2011 in (Ardiansyah, et al., 2016) show that the level of creative thinking of students in Indonesia is still relatively low. Therefore, teachers need to provide learning that is able to help optimize students' creative thinking skills.

According to Ariana (2020), Creative Problem Solving (CPS) is an achievement of good solutions in education where problem solving is uniformed or creatively varied. Creative Problem Solving (CPS) there are several targets that must be considered, namely: students will be able to state the sequence of solving problem solving steps in Creative Problem Solving (CPS), students are able to find possible problem solving strategies, students are able to evaluate and select possibilities the possibility is related to the existing criteria, students are able to choose an optimal solution, students are able to develop a plan in implementing problem solving strategies, students are able to articulate how Creative Problem Solving (CPS) can be used in various fields or situations.

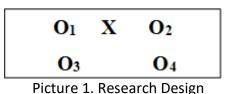
In addition to the Creative Problem Solving (CPS) model, teachers can also use learning media. One of the media that can be used is serial image media. According to Kurniawan (2014) learning media is needed in addition to a vehicle for delivering learning materials as well as to increase the clarity of the discussion of the material. According to Krissandi (2020), serial images are media that displays a number of images with the background of the atmosphere being told and shows continuity between one image and another.

Picture series according to Arsyad (2011) is a series or story that is presented

sequentially. The use of pictures in learning will train students to express the scenes and activities in the pictures. Based on this explanation, this study aims to examine the effect on creative thinking skills after being given treatment in the form of applying the Creative Problem Solving (CPS) model with the help of serial image media.

Method

This study uses quantitative methods. Quantitative research according to Sugiyono (2018) is a research method used to find the effect of certain treatments on others under controlled conditions. The type of experiment is a quasi-experimental research design with a nonequivalent control group design type. The design can be described as follows:



Information:

- O₁ : Creative thinking ability of experimental class students before being given treatment
- O₂ : Class students' creative thinking skillsexperiment after being given treatment
- O₃ : Creative thinking ability of control class students before being given treatment
- O₄ : Kcreative thinking ability of control class students who were not given treatment
- X :the treatment given, creative problem solving with the help of Media Image Series

The independent variable as a treatment in this study is the application of creative problem solving models assisted by serial image media in learning, while the dependent variable is the ability to think creatively. The population in this study is

the Elementary School Cluster I, Somba Opu District, Gowa Regency. As for this study using cluster random sampling. Determination of the sample obtained from a lottery conducted on the population using a simple lottery. The sample in this study is SD Negeri Sungguminasa IV, Gowa district.

Data collection techniques using tests and documentation. According to Arikunto (2013) a test is a series of questions or exercises and other tools used to measure skills, intelligence knowledge, abilities or talents possessed by individuals or groups. This test aims to measure students' thinking creative skills. while documentation aims to take documentation in the form of lesson plans (RPP) and photos in learning activities using creative problem solving models with the help of serial image media. The data analysis technique in this study consisted of descriptive analysis and parametric inferential analysis with the help of SPSS version 26 application. The test used in parametric inferential analysis was the independent sample t test. As for decision making in the test, if the significance value (2-tailed) <0.05, it can be stated that there is a significant and positive influence on the application of creative problem solving models on creative thinking skills.

Results and Discussion

Results

1. Descriptive Analysis

Descriptive analysis was used in this study by describing the average creative thinking ability in the pretest posttest control and experimental classes. The description of creative thinking in table 1 is as follows:

Table 1. Description of Creative Thinking Ability

Class	Average Creative Thinking
	Ability

	Pretest	Posttest		
Experiment	67.08	80.20		
Control	62.08	64.49		
Source: SPSS version 26				

Based on table 1, that the creative thinking ability of students in the control class there is no significant average difference. The experimental class as the class that was given treatment, showed a significant difference in the average creative thinking ability of students after the application of creative problem solving models assisted by serial picture media.

- 2. Prerequisite Test
 - a. Normality test

The normality test aims to test the distribution of the data obtained is normally distributed or not and as a prerequisite test for parametric inferential analysis. The data can be said to be normal if the significance value obtained is greater than 0.05. The normality test in this study uses the Shapiro Wilk test on the SPSS version 26 application. The results of the normality test in this study are as follows:

Table 2. Shapiro Wilk Normality Test

Class	Data	Sig.	
Control	Pretest	0.065	
Control	Posttest	0.063	
Euro arian ant	Pretest	0.059	
Experiment	Posttest	0.071	
Source: SPSS Version 26			

Source: SPSS Version 26

Based on decision making, if the significance value obtained is greater than 0.05 then the data is normally distributed. The significance value obtained from each pretest posttest data in the experimental and control classes has a significance value of more than 0.05. Therefore, it can be stated that the data obtained are normally distributed.

b. Homogeneity Test

The homogeneity test aims to determine whether the two groups of data obtained are homogeneous or not and as a prerequisite test for parametric inferential analysis. The data can be said to be homogeneous if the significance value obtained is greater than 0.05. The homogeneity test in this study uses the SPSS version 26 application. The results of the homogeneity test in this study are as follows:

Table 3. Homogeneity Test

	0	/	
Variable	Level Statistics	df	Sig.
Creative			
Thinking	0.318	58	0.575
Ability			
Courses CDCC Version 2C			

Source: SPSS Version 26

Based on decision making, if the significance value obtained is greater than 0.05 then the two groups of data obtained are homogeneous. The significance value obtained by each variable in the two data groups has a significance value of more than 0.05. Therefore, it can be stated that the data obtained both in groups are homogeneous.

3. Hypothesis testing

Hypothesis testing to determine the effect of creative problem solving models assisted by serial picture media on creative thinking skills was carried out using an independent sample t test with the assistance of SPSS version 26 application. creative thinking ability if the significance value obtained is less than 0.05. The results of the independent sample t test to determine the effect of creative problem solving models assisted by serial picture media on creative thinking skills are as follows:

Table 4. Hypothesis Testing Independent Sample T Test

· · · · ·		
	df	Sig. (2-
	. ai	5.8. (~
		tailed)

Results	Equal Variance	58	0.00
	Assumed		
	Equal	57.23	0.00
	Variance not		
	Assumed		
Source: SPSS Version 26			

Based on the basis of decision making, if the significance value is less than 0.05, it can be stated that there is an influence of creative problem solving models assisted by serial picture media on creative thinking skills. The significance value obtained from the independent sample t test is 0.00, which is smaller than 0.05. Therefore, it can be stated that there is an influence of creative problem solving model assisted by serial image media on creative thinking ability.

Discussion

The results in this study indicate that the creative problem solving model assisted by serial pictures has an effect on the creative thinking ability of students in class IV at SDN Sungguminasa IV, Gowa district. The results in this study are in accordance with the theory proposed by Ariani et al,. (2020) that the Creative Problem Solving model can help students use creative thinking patterns. Therefore, the creative problem solving model certainly has an influence on students' creative thinking abilities. The application of the creative problem solving model is highly recommended for use by teachers as a model that can help optimize students' creative thinking skills.

Conclusion

Based on the data analysis and discussion above, the writer can conclude that: creative problem solving model assisted by serial picture media affects the creative thinking ability of students in grade IV SDN Sungguminasa IV, Gowa Regency. Teachers are expected to be able to choose a learning model that suits the needs of students, have thorough preparation before teaching, of course with this creative problem solving model it will be one of the considerations for teachers if they want to know the extent of students' creativity in solving problems related to learning materials. Because this model can help students in exercising their creativity through the process of finding creative ideas.

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